AMENDMENT UNDER 37 C.F.R. § 1.111
Application No.: 10/807,009

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the

application:

LISTING OF CLAIMS:

1.   (*Currently Amended*) A method of determining user interactions comprising the steps of:

determining speech information;

determining discourse functions and prosodic features in the speech information;

determining a predictive interaction model; and

determining an interaction turn based on the predictive interaction model and the

determined discourse functions and prosodic features, wherein the discourse functions are

determined based on a theory of discourse analysis, the theory of discourse analysis being at least

one of: the Linguistic Discourse Model, the Unified Linguistic Discourse Model, Rhetorical

Structures Theory, Discourse Structure Theory and Structured Discourse Representation Theory.

2.   (*Original*) The method of claim 1, in which the discourse functions are determined from

automatically recognized speech information.

3.-4.   (*Cancelled*)

5.   (*Original*) The method of claim 1, further comprising the step of scheduling an

interaction event based on the turn prediction.

6.   (*Original*) The method of claim 1, in which the prosodic features include at least one of:

a silence preceding a discourse functions; a silence following a discourse function; rate of

speech; pitch frequency; changes in pitch frequency and volume.

7.   (*Currently Amended*) A method of determining a predictive interaction model comprising

the steps of:

        determining a training corpus of turn annotated speech information;

        determining discourse functions and prosodic features associated with the turn

information; and

        determining a predictive interaction model based on the discourse functions, the prosodic

features and the turn information, wherein the discourse functions are determined based on a

theory of discourse analysis, the theory of discourse analysis being at least one of: the Linguistic

Discourse Model, the Unified Linguistic Discourse Model, Rhetorical Structures Theory,

Discourse Structure Theory and Structured Discourse Representation Theory.

8.   (*Currently Amended*) The method of claim 7, in which the predictive interaction model is

determined based on at least one of machine learning, decision tree, Naive ~~Nave~~ Bayes, rules and

statistics.

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9.   (*Cancelled*)

10.   (*Currently Amended*) A system for determining interactions comprising:

        an input/output circuit for retrieving recognized speech and prosodic features;

        a processor that determines speech information; and discourse functions and prosodic

features in the speech information; determines a predictive interaction model; and determines an

interaction turn based on the predictive interaction model and the discourse functions and

prosodic features, wherein the discourse functions are determined based on a theory of discourse

analysis, the theory of discourse analysis being at least one of: the Linguistic Discourse Model,

the Unified Linguistic Discourse Model, Rhetorical Structures Theory, Discourse Structure

Theory and Structured Discourse Representation Theory.

11.   (*Original*) The system of claim 10, in which the discourse functions are determined from

automatically recognized speech information.

12.-13. (*Cancelled*)

14.   (*Original*) The system of claim 10, in which the processor also schedules an interaction

event based on the turn prediction.

15.   (*Original*) The system of claim 10, in which the prosodic features include at least one of:

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a silence preceding a discourse functions; a silence following a discourse function; rate of

speech; pitch frequency; changes in pitch frequency and volume.

16.   (*Currently Amended*) Computer readable storage medium comprising: computer readable

program code embodied on the computer readable storage medium, the computer readable

program code usable to program a computer to determine interactions comprising the steps of:

> determining speech information;

> determining discourse functions and prosodic features in the speech information;

> determining a predictive interaction model; and

> determining an interaction turn based on the predictive interaction model and the

determined discourse functions and prosodic features, wherein the discourse functions are

determined based on a theory of discourse analysis, the theory of discourse analysis being at least

one of: the Linguistic Discourse Model, the Unified Linguistic Discourse Model, Rhetorical

Structures Theory, Discourse Structure Theory and Structured Discourse Representation Theory.

17.   (*Original*) The method of claim 1, in which the speech information is at least one of:

verbal natural language information and non-verbal natural language information.

18.   (*Original*) The method of claim 17, in which the non-verbal information is at least one of:

sign language gestures, pen gestures, hand gestures, body gestures and facial gestures.

19.   (*Original*) The method of claim 7, in which the speech information is at least one of:

verbal information natural language and non-verbal natural language information.

20.   (*Original*) The method of claim 18, in which the prosodic features include at least one of:

facial expressions, gesture velocity, and gesture force.